

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b> <b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
Attorney Docket No.		50875-F-PCT US/JPW/AG/LAD

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		U.S. 6,025,154	10-10-2004	Y. Li et al.
		U.S. 6,265,184	07-24-2001	P.W. Gray et al.
		U.S. 6,268,477	07-31-2002	P.W. Gray et al.
		U.S. 6,488,375	09-10-2002	M. Samson et al.
		U.S. 6,511,826	01-28-2003	Y. Li et al.
		U.S. 6,692,938	02-17-2004	M. Samson et al.
		U.S. 6,743,594	06-01-2004	Y. Li et al.
		U.S. 6,972,126	12-06-2005	G.P. Allaway et al.
		U.S. 6,800,447	10-05-2004	M. Samson et al.
		U.S. 6,800,729	10-05-2004	Y. Li et al.
		U.S. 5,449,608	09-12-1995	N. Young et al.
		U.S. 6,261,763 B1	07-17-2001	G.P. Allaway et al.
		U.S. 6,528,625	03-04-2003	L. Wu et al.
		U.S. 6,930,174	08-16-2005	M. Samson et al.
		U.S. 6,100,087	08-08-2000	J. Rossi et al.
		U.S. 5,939,320	08-17-1999	D. Littman et al.
		U.S. 6,258,527	07-10-2001	D. Littman et al.
		U.S. 6,258,782	07-10-2001	S. Barney et al.

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
		WO 92/01451	02-06-1992		
		WO 95/16789	06-22-1995		
		WO 97/28258	08-07-1997		
		WO 97/44462	11-27-1997		
		WO 98/18826	05-07-1998		
		WO 01/55439	08-02-2001		

EXAMINER  
SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

Applicants: Graham P. Allaway et al.  
 Serial No.: 09/460,216  
 Filed: December 13, 1999  
 Exhibit A

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		U.S. 6,692,938	02-17-2004	M. Samson et al.
		U.S. 5,071,964	12-10-1991	M. Dustin et al.
		U.S. 5,091,513	02-25-1992	J. Huston et al.
		U.S. 5,215,913	06-01-1993	M.R. Posner et al.
		U.S. 5,225,539	07-06-1993	G.P. Winter et al.
		U.S. 5,603,933	02-18-1997	V.A. Dwyer et al.
		U.S. 5,668,149	09-16-1997	S. Oroszlan et al.
		U.S. 5,817,767	10-06-1998	G.P. Allaway et al.
		U.S. 5,854,400	12-29-1988	T. Chang et al.
		U.S. 4,886,743	12-12-1989	L.E. Hood et al.
		U.S. 2003/0023044	01-30-2003	Y. Li et al.
		U.S. 2005/0260565	11-24-2005	P.W. Gray et al.
		U.S. 2005/0118677	06-02-2005	P.W. Gray et al.
		U.S. 2003/0166870	09-04-2003	L. Wu et al.
		U.S. 2004/0259785	12-23-2004	C. Combadiere et al.
		U.S. 2003/0195348	10-16-2003	C. Combadiere et al.
		U.S. 2003/0096221	05-22-2003	D. Littman et al.
		U.S. 2003/0003440	01-02-2003	L. Lopalco et al.

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
		WO 02/064612	08-22-2002		
		WO 01/58915	08-16-2001		
		WO 01/58916	08-16-2001		
		WO 96/39437	12-12-1996		
		WO 97/22698	06-26-1997		
		WO 97/44055	11-27-1997		
		WO 97/032019	09-04-1997		

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

\***EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		U.S. 2002/0150888	10-17-2002	P.W. Gray et al.
		U.S. 2004/0161739	08-19-2004	M. Samson et al.
		U.S. 2004/0230037	11-18-2004	P.W. Gray et al.
		U.S. 2004/0110127	06-10-2004	M. Samson et al.
		U.S. 2005/0154193	07-14-2005	V. Roschke et al.
		U.S. 2003/0100058	05-29-2003	V. Roschke et al.
		U.S. 2003/0166024	09-04-2003	C. Rosen et al.
		U.S. 2004/0151719	08-08-2004	Y. Li et al.
		U.S. 2001/0000241	04-12-2002	Y. Li et al.
		U.S. 2001/0046512	11-29-2001	V.M. Litwin et al.
		U.S. 2002/0048786	04-25-2002	C. Rosen et al.
		U.S. 2002/0061834	05-23-2002	C. Rosen et al.
		U.S. 2002/0110870	08-15-2002	M. Samson et al.
		U.S. 2003/0023044	01-30-2003	Y. Li et al.
		U.S. 2006/0029932	02-09-2006	G.P. Allaway et al.
		U.S. 2006/0140977	6-29-2006	G.P. Allaway et al.
		U.S. 2002/0045161	04-18-2002	G.P. Allaway et al.
		U.S. 2004/0062767	04-01-2004	W.C. Olson et al.

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
		EP 9687002.1	03-01-1996		
		EP 96870102.9	08-06-1996		
		EP 1145721 A2	10-17-2001		
		EP 1146055 A2	10-17-2001		
		EP 1146122 A2	10-17-2001		
		EP 1148126 A2	10-24-2001		
		EP 1148127 A2	10-24-2001		

EXAMINER  
SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.



<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Abaza, M.S.I et al., (1992) "Effects Of Amino Acid Substitutions Outside An Antigenic Site On Protein Binding To Monoclonal Antibodies Of Predetermined Specificity Obtained By Peptide Immunization: Demonstration With Region 94-100 (Antigenic Site 3) Of Myoglobin", <i>J. Prot. Chem.</i> 11(5):433-443	
		Alexander, H. et al., (1992) "Altering The Antigenicity Of Proteins", <i>Proc. Natl. Acad. Sci.</i> 89:3352-3356	
		Alkhatib et al., (1996) Abstract At 3rd Conference On Retroviruses	
		Allan, J., (1997) "Human Immunodeficiency Virus-Related Infections In Animal Model Systems", In <i>AIDS: Biology, Diagnosis, Treatment And Prevention</i> , 4th Edition, Lippincott-Raven Publishers, Philadelphia, Pp 15-27	
		Allaway, G.P. et al., (1993) "Synergistic Inhibition Of HIV-1 Envelope-Mediated Cell Fusion By CD4-Based Molecules In Combination With Antibodies To gp120 Or gp41", <i>AIDS Res Hum Retroviruses</i> 9:581-587	
		Allaway, G.P. et al., (1995) "Expression And Characterization Of CD4-IgG <sub>2</sub> , A Novel Heterotetramer That Neutralizes Primary HIV Type 1 Isolates", <i>AIDS Res Hum Retrovirus</i> 11:533-539	
		Amara, A. et al., (1997) "HIV Coreceptor Downregulation As Antiviral Principle: SDF-1 $\alpha$ -Dependent Internalization Of The Chemokine Receptor CXCR4 Contributes To Inhibition Of HIV Replication", <i>J. Exp. Med.</i> 186:139-146	
		Arthos, J. et al., (1989) "Identification Of The Residues In Human CD4 Critical For The Binding Of HIV". <i>Cell</i> 57:469-481	
		Ashorn, P.A. et al., (1990) "Human Immunodeficiency Virus Envelope Glycoprotein/CD4 Mediated Fusion Of Nonprimate Cells With Human Cells", <i>J. Virol.</i> 64:2149-2156	
		Attanasio, R. et al., (1991) "Anti-Idiotypic Antibody Response To Monoclonal Anti-CD4 Preparations In Nonhuman Primate Species", <i>J. Immunol.</i> 146:507-514	
		Baba, M. et al., (1988) "Mechanism Of Inhibitory Effect Of Dextran Sulfate And Heparin On Replication Of Human Immunodeficiency Virus In Vitro", <i>Proc. Natl. Acad. Sci.</i> 85:6132-6136	
		Baulerle, P.A. And Huttner, W.B., (1987) "Tyrosine Sulfation Is A Trans-Golgi-Specific Protein Modification", <i>Cell. Biol.</i> 105:2655-2663	
		Benet et al. (1990) "Pharmacokinetics: The Dynamics Of Drug Absorption, Distribution And Elimination" In <i>Goodman And Gilman's The Pharmacological Basis Of Therapeutics</i> , Gilman Et El., Eds. Pergamon Press, New York, Pp 3-32	

EXAMINER  
SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b>		<b>U.S. Department of Commerce Patent and Trademark Office</b>		<b>Application Number</b>	<b>09/460,216</b>
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				<b>Filing Date</b>	<b>December 13, 1999</b>
				<b>First Named Inventor</b>	<b>Graham P. Allaway et al.</b>
				<b>Art Unit</b>	<b>1648</b>
				<b>Examiner Name</b>	<b>Jeffrey S. Parkin</b>
				<b>Attorney Docket No.</b>	<b>50875-F-PCT US/JPW/AG/LAD</b>
<b>NON PATENT LITERATURE DOCUMENTS</b>					
<b>Examiner Initials*</b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>			<b>T<sup>2</sup></b>
		Berger, E.A. et al (1996) Abstract No. 002, 8 At Keystone Symposium			
		Berger, E.A., (1997) "HIV Entry And Tropism: The Chemokine Receptor Connection" AIDS 11(Suppl A):S3-S16			
		Berger, E.A. et al., (1999) "Chemokine Receptors As HIV-1 Coreceptors: Roles In Viral Entry, Tropism And Disease", Ann. Rev. Immunol. 17:657-700			
		Bieniasz, P.D. et al., (1997) "HIV-1 Induced Cell Fusion Is Mediated By Multiple Regions Within Both The Viral Envelope And The CCR5 Co-Receptor", EMBO 16:2599-2609			
		Blanpain, C. et al., (1999) "Multiple Charged And Aromatic Residues In CCR5 Amino-Terminal Domain Are Involved In High Affinity Binding Of Both Chemokines And HIV-1 Env Protein", J. Biol. Chem. 274:34719-34727			
		Brelot, A. et al., (1997) "Role Of The First And Third Extracellular Domains Of CXCR4 In Human Immunodeficiency Virus Coreceptor Activity", J. Virol. 71:4744-4751			
		Broder, C.C. et al., (1993) "The Block To HIV-1 Envelope Glycoprotein-Mediated Membrane Fusion In Animal Cells Expressing Human CD4 Can Be Overcome By A Human Cell Component(s)", Virol. 193:483-491			
		Burkly, L. et al., (1995) "Synergistic Inhibition Of Human Immunodeficiency Virus Type 1 Envelope Glycoprotein-Mediated Cell Fusion And Infection By An Antibody To CD4 Domain 2 In Combination With Anti-gp-120 Antibodies", J. Virol. 69:4267-4273			
		Burton, D.R. et al., (1994) "Efficient Neutralization Of Primary Isolates Of HIV-1 By A Recombinant Human Monoclonal Antibody", Science 266:1024-1027			
		Busso, M. et al., (1991) "HIV-Induced Syncytium Formation Requires The Formation Of Conjugates Between Virus-Infected And Uninfected T-Cells In Vitro", AIDS 5:1425-1432			
		Camerini, D. et al., (1990) "A CD4 Domain Important For HIV-Mediated Syncytium Formation Lies Outside The Virus Binding Site", Cell 60:747-754			
		Cammack, N., (1999) "Human Immunodeficiency Virus Type 1 Entry And Chemokine Receptors: A New Therapeutic Target", Antivir. Chem. Chemother. 10:53-62			
		Capon, D.J. et al., (1989) "Designing CD4 Immuno adhesions For AIDS Therapy", Nature 337:525-531			
<b>EXAMINER SIGNATURE</b>		<b>DATE CONSIDERED</b>			
<p><b>*EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.</p>					

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	09/460,216
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				Filing Date	December 13, 1999
				First Named Inventor	Graham P. Allaway et al.
				Art Unit	1648
				Examiner Name	Jeffrey S. Parkin
				Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD
<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Chams, V. et al., (1992) "Simple Assay To Screen For Inhibitors Of Interaction Between The Human Immunodeficiency Virus Envelope Glycoprotein And Its Cellular Receptor, CD4", <i>Antimicrob Agents Chemother.</i> 36(2):262-272			
		Chan, D.C. et al., (1998) "Evidence That A Prominent Cavity In The Coiled Coil Of HIV Type 1 gp41 Is An Attractive Drug Target", <i>Proc. Natl. Acad. Sci.</i> 95:15613-15617			
		Chan, D.C. et al., (1998) "HIV Entry And Its Inhibition", <i>Cell</i> 93:681-684			
		Charo, I.F. et al., (1994) "Molecular Cloning And Functional Expression Of Two Monocyte Chemoattractant Protein 1 Receptors Reveals Alternative Splicing Of The Carboxyl-Terminal Tails", <i>Proc. Natl. Acad. Sci.</i> 91:2752-2756			
		Chen, Z. et al., (1997) "Genetically Divergent Strains Of Simian Immunodeficiency Virus Use CCR5 As A Coreceptor For Entry", <i>J. Virol.</i> 71(4):2705-2714			
		Clapham, P.R. et al., (1989) "Soluble CD4 Blocks The Infectivity Of Diverse Strains Of HIV And SIV For T Cells And Monocytes But Not For Brain And Muscle Cells", <i>Nature</i> 337:368-370			
		Clapham, P.R. et al., (1991) "Specific Cell Surface Requirements For The Infection Of CD4-Positive Cells By Human Immunodeficiency Virus Types 1 And 2 By Simian Immunodeficiency Virus", <i>Virol.</i> 181:703-715			
		Co. M.S. et al., (1991) "Humanized Antibodies For Antiviral Therapy" <i>Proc. Natl. Acad. Sci.</i> 88:2869-2873			
		Combadiere, C. et al., (1995) "Cloning And Functional Expression Of A Human Eosinophil CC Chemokine Receptor", <i>J. Biol. Chem.</i> 270:16941-16494			
		Combadiere, C. et al., (1996) "Cloning And Functional Expression Of CC CKR5, A Human Monocyte CC Chemokine Receptor Selective For MIP-1 $\alpha$ , MIP-1 $\beta$ , And RANTES", <i>J. Leukoc. Biol.</i> 60:147-152			
		Connor, R.I. et al., (1997) "Change In Co-Receptor Use Correlates With Disease Progression In HIV-1 Infected Individuals", <i>J. Exp. Med.</i> 185:621-628			
		Cormier, E. G. et al., (2000) "Specific Interaction Of CCR5 Amino-Terminal Domain Peptides Containing Sulfotyrosines With HIV-1 Envelope Glycoprotein gp120", <i>Proc. Natl. Acad. Sci.</i> 97:5762-5767			
EXAMINER SIGNATURE		DATE CONSIDERED			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a checkmark here if English language Translation is attached.</p>					

<b>Form PTO-1449</b>		<b>U.S. Department of Commerce Patent and Trademark Office</b>		<b>Application Number</b>	09/460,216
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				<b>Filing Date</b>	December 13, 1999
				<b>First Named Inventor</b>	Graham P. Allaway et al.
				<b>Art Unit</b>	1648
				<b>Examiner Name</b>	Jeffrey S. Parkin
				<b>Attorney Docket No.</b>	50875-F-PCT US/JPW/AG/LAD
<b>NON PATENT LITERATURE DOCUMENTS</b>					
<b>Examiner Initials<sup>*</sup></b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>			<b>T<sup>2</sup></b>
		Crowe, S.M. et al., (1992) "Human Immunodeficiency Virus-Infected Monocyte-Derived Macrophages Express Surface gp120 And Fuse With CD4 Lymphoid Cells In Vitro: A Possible Mechanism Of T Lymphocyte Depletion In Vivo", <i>Clin. Immunol Immunopathol.</i> 65(2):143-151			
		Crump, M.P. et al., (1997) "Solution Structure And Basis For Functional Activity Of Stromal-Cell Derived Factor-1: Disassociation Of CXCR4 Activation From Binding And Inhibition Of HIV-1", <i>EMBO</i> 16:6996-7007			
		Cushman, M. et al., (1991) "Preparation And Anti-HIV Activities Of Aurintricarboxylic Acid Fractions And Analogues: Direct Correlation Of Antiviral Potency With Molecular Weight", <i>J. Med. Chem.</i> 34:329-337			
		Dalglish, A.G. et al., (1984) "The CD4 (T4) Antigen Is An Essential Component Of The Receptor For The AIDS Retrovirus" <i>Nature</i> 312:763-766			
		Dalglish, A.G., (1995) "HIV And CD26", <i>Nat. Med.</i> 1:881-882			
		De Rossi, A. et al., (1995) "Synthetic Peptides From The Principle Neutralizing Domain Of Human Immunodeficiency Virus Type 1 (HIV-1) Enhance HIV-1 Infection Through A CD4-Dependent Mechanism", <i>Virology</i> 184:187-196			
		Dean, M. et al., (1996) "Genetic Restriction Of HIV-1 Infection And Progression To AIDS By A Deletion Allele Of The CCR5 Structural Gene", <i>Science</i> 273:1856-1862			
		Deen, K.C. et al., (1988) "A Soluble Form Of CD4(T4) Protein Inhibits AIDS Virus Infection", <i>Nature</i> 331:82-84			
		Deng, X. et al., (1999) "A Synthetic Peptide Derived From Human Immunodeficiency Virus Type 1 gp120 Downregulates The Expression And Function Of Chemokine Receptors CCR5 And CXCR4 In Monocytes By Activating The 7-Transmembrane G-Protein-Coupled Receptor FPRL1/LXA4R", <i>Blood</i> 94(4):1165-1173			
		Dettin, M. et al., (2003) "CCR5 N-Terminus Peptides Enhance X4 HIV-1 Infection By CXCR4 Up-Regulation", <i>Biochem. Biophys. Res. Commun.</i> 307(3):640-646			
		Dimitrov, D.S. et al., (1991) "Initial Stages Of HIV-1 Envelope Glycoprotein-Mediated Cell Fusion Monitored By A New Assay Based On Redistribution Of Fluorescent Dyes", <i>AIDS Res Hum Retroviruses</i> 7(10):799-805			
		Ditzel, H.J. et al., (1998) The CCR5 Receptor Acts As An Alloantigen In CCR5Δ32 Homozygous Individuals: Identification Of Chemokine And HIV-1 Blocking Human Antibodies", <i>Proc. Natl. Acad. Sci.</i> 95(9):5241-5245			
<b>EXAMINER SIGNATURE</b>		<b>DATE CONSIDERED</b>			
<p><b>*EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.</p>					



<b>Form PTO-1449</b>		<b>U.S. Department of Commerce Patent and Trademark Office</b>		<b>Application Number</b>	<b>09/460,216</b>
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				<b>Filing Date</b>	<b>December 13, 1999</b>
				<b>First Named Inventor</b>	<b>Graham P. Allaway et al.</b>
				<b>Art Unit</b>	<b>1648</b>
				<b>Examiner Name</b>	<b>Jeffrey S. Parkin</b>
				<b>Attorney Docket No.</b>	<b>50875-F-PCT US/JPW/AG/LAD</b>
<b>NON PATENT LITERATURE DOCUMENTS</b>					
<b>Examiner Initials*</b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>			<b>T<sup>2</sup></b>
		Donzella, G.A. et al., (1998) "AMD3100, A Small Molecule Inhibitor Of HIV-1 Entry Via The CXCR4 Co-Receptor", <i>Nat. Med.</i> 4:72-77			
		Doranz, B.J. et al., (1997) "Two Distinct CCR5 Domains Can Mediate Co-Receptor Usage By Human Immunodeficiency Virus Type 1", <i>J. Virol.</i> 71:6305-6314			
		Dragic, T. et al., (1992) "Complementation Of Murine Cells For Human Immunodeficiency Virus Envelope/CD4-Mediated Fusion In Human/Murine Heterokaryons", <i>J. Virol.</i> 66(8):4794-4802			
		Dragic, T.V. et al., (1993) "Different Requirements For Membrane Fusion Mediated By The Envelopes Of Human Immunodeficiency Virus Types 1 And 2", <i>J. Virol.</i> 67(4):2355-2359			
		Dragic, T.V. et al., (1995) "Proteinase-Resistant Factors In Human Erythrocyte Membranes Mediate CD-4 Dependent Fusion With Cells Expressing Human Immunodeficiency Virus Type 1 Envelope Glycoproteins", <i>J. Virol.</i> 69:1013-1018			
		Dragic, T.V. et al., (1998) "Amino-Terminal Substitutions In The CCR5 Coreceptor Impair gp120 Binding And Human Immunodeficiency Virus Type 1 Entry" <i>J. Virol.</i> 72(1):279-285			
		Dragic, T.V. et al., (2000) "A Binding Pocket For A Small Molecule Inhibitor Of HIV-1 Entry Within The Transmembrane Helices Of CCR5", <i>Proc. Natl. Acad. Sci.</i> 97(10):5639-5644			
		Ebadi, M., (1998) "The Pharmacokinetic Basis Of Therapeutics", In CRC Desk Reference Of Clinical Pharmacology, CRC Press LLC, Boca Raton, Pp. 1-7			
		Eckert, D.M. et al., (1999) "Inhibiting HIV-1 Entry: Discovery Of D-Peptide Inhibitors That Target The gp41 Coiled-Coil Pocket", <i>Cell</i> 99:103-115			
		Eugene-Olsen, J. et al., (1997) "Heterozygosity For A Deletion In The CCR-5 Gene Leads To Prolonged AIDS-Free Survival And Slower CD4 T-Cell Decline In A Cohort Of HIV-Seropositive Individuals", <i>AIDS</i> 11:305-310			
		Farzan, M. et al., (1998) "A Tyrosine-Rich Region In The N-Terminus Of CCR5 Is Important For Human Immunodeficiency Virus Type 1 Entry And Mediates Association Between gp120 And CCR5", <i>J. Virol.</i> 72:1160-1164			
		Farzan, M. et al., (1999) "Tyrosine Sulfation Of The Amino-Terminus Of CCR5 Facilitates HIV-1 Entry", <i>Cell</i> 96:667-676			
		Farzan, M. et al., (2000) "A Tyrosine-Sulfated Peptide Based On The N Terminus Of CCR5 Interacts With A CD4-Enhanced Epitope Of The HIV-1 gp 120 Envelope Glycoprotein And Inhibits HIV-1 Entry", <i>J. Biol. Chem.</i> 275:33416-33521			
<b>EXAMINER SIGNATURE</b>		<b>DATE CONSIDERED</b>			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.</p>					

<b>Form PTO-1449</b>		<b>U.S. Department of Commerce Patent and Trademark Office</b>		<b>Application Number</b>	<b>09/460,216</b>
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				<b>Filing Date</b>	<b>December 13, 1999</b>
				<b>First Named Inventor</b>	<b>Graham P. Allaway et al.</b>
				<b>Art Unit</b>	<b>1648</b>
				<b>Examiner Name</b>	<b>Jeffrey S. Parkin</b>
				<b>Attorney Docket No.</b>	<b>50875-F-PCT US/JPW/AG/LAD</b>
<b>NON PATENT LITERATURE DOCUMENTS</b>					
<b>Examiner Initials<sup>*</sup></b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>			<b>T<sup>2</sup></b>
		Feng, Y. et al., (1996) Abstract No. 116,21 At Keystone Symposium			
		Ferrer, M. et al., (1999) "Selection Of gp-41 Mediated HIV-1 Cell Entry Inhibitors From Biased Combinatorial Libraries Of Non-Natural Binding Elements", <i>Nature Struct. Biol.</i> 6:953-959			
		Fouchier, R.A. et al., (1994) "HIV-1 Macrophage Tropism Is Determined At Multiple Levels Of The Viral Replication Cycle", <i>J. Clin. Invest.</i> 94:1806-1814			
		Fouts, T.R. et al., (1997) "Neutralization Of The Human Immunodeficiency Virus Type 1 Primary Isolate JR-FL By Human Monoclonal Antibodies Correlates With Antibody Binding To The Oligomeric Form Of The Envelope Glycoprotein Complex", <i>J. Virol.</i> 71:2779-2785			
		Freed, E.O. et al., (1991) "Identification Of Conserved Residues In The Human Immunodeficiency Virus Type 1 Principal Neutralizing Determinant That Are Involved In Fusion", <i>AIDS Res. Hum. Retroviruses.</i> 7(10):807-811			
		Fradd, F. and Mary, M.E. (1989) "AIDS Vaccines: An Investor's Guide By Shearman Lehman Hutton", Page 10 (Fig. 2)			
		Frazer, J.K. and Capra, J.D., (1999) "Immunoglobulins: Structure And Function" Fundamental Immunology, 4th Edition, Lippincott-Raven Publishers, Philadelphia, Pp. 37-74			
		Furuta, R.A. et al., (1998) "Capture Of An Early Fusion-Active Conformation Of HIV-1 gp41", <i>Nature Struct. Biol.</i> 5(4):276-279			
		Gauduin, M.C. et al., (1996) "Effective Ex Vivo Neutralization Of Human Immunodeficiency Virus Type 1 in Plasma By Recombinant Immunoglobulin Molecules", <i>J. Virol.</i> 70:2586-2592			
		Gauduin, M.C. et al., (1997) "Passive Immunization With A Human Monoclonal Antibody Protects hu-PBL-SCID Mice Against Challenge By Primary Isolates Of HIV-1", <i>Nat. Med.</i> 3:1389-1393			
		Ghorpade, A. et al, (1998) "Role Of The $\beta$ -Chemokine Receptors CCR3 And CCR5 In Human Immunodeficiency Virus Type 1 Infection Of Monocytes And Microglia", <i>J. Virol.</i> 72:3351-3361			
		Golding, H. et al., (1992) "LFA-1 Adhesion Molecules Are Not Involved In The Early Stages Of HIV-1 <i>env</i> -Mediated Cell Membrane Fusion", <i>AIDS Res. Hum. Retroviruses</i> 8:1593-1598			
		Graham, B.S. et al., (1995) "Candidate AIDS Vaccines", <i>New Engl. J. Med.</i> 333:1331-1339			
<b>EXAMINER SIGNATURE</b>		<b>DATE CONSIDERED</b>			
<p><b>*EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.</p>					

<b>Form PTO-1449</b>		<b>U.S. Department of Commerce Patent and Trademark Office</b>		<b>Application Number</b>	<b>09/460,216</b>
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				<b>Filing Date</b>	<b>December 13, 1999</b>
				<b>First Named Inventor</b>	<b>Graham P. Allaway et al.</b>
				<b>Art Unit</b>	<b>1648</b>
				<b>Examiner Name</b>	<b>Jeffrey S. Parkin</b>
				<b>Attorney Docket No.</b>	<b>50875-F-PCT US/JPW/AG/LAD</b>
<b>NON PATENT LITERATURE DOCUMENTS</b>					
<b>Examiner Initials<sup>2</sup></b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>			<b>T<sup>2</sup></b>
		Greene, E. et al., (2001) "Anti-CCR5 Antibodies In Sera Of HIV-Positive Individuals", <i>Human Immunol.</i> 62(2):143-145			
		Harouse, J.M. et al., (1991) "Inhibition Of Entry Of HIV-1 In Neural Cell Lines By Antibodies Against Galactosyl Ceramide", <i>Science</i> , 253:320-323			
		Harrington, R.D. And Geballe, A.P., (1993) "Cofactor Requirement For Human Immunodeficiency Virus Type 1 Entry Into A CD4-Expressing Human Cell Line", <i>J. Virol</i> 67:5939-5947			
		He, J. et al., (1997) "CCR3 And CCR5 Are Co-Receptors For HIV-1 Infection Of Microglia", <i>Nature</i> 385: 645-649			
		Heath, et al., (1997) "Chemokine Receptor Usage By Human Eosinophils. The Importance Of CCR3 Demonstrated Using An Antagonistic Monoclonal Antibody", <i>J. Clin. Invest.</i> 99:178-184			
		Heidenreich, O. et al., (1995) "Application Of Antisense Technology To Therapeutics", <i>Mol. Med. Today</i> 1:128-133			
		Hildreth, J.E. et al., (1989) "Involvement Of A Leukocyte Adhesion Receptor (LFA-1) In HIV-Induced Syncytium Formation" <i>Science</i> 244:1075-1078			
		Hill, C.M. et al., (1998) "The Amino Terminus Of Human CCR5 Is Required For Its Function As A Receptor For Diverse Human And Simian Immunodeficiency Virus Envelope Glycoproteins", <i>Virology</i> 248:357-371			
		Hirata, Y., (1989) "Characterization Of IL-6 Receptor Expression By Monoclonal And Polyclonal Antibodies", <i>J. Immun.</i> 143(9):2900-2906			
		Hirsch, M.S. et al., (1997) "Antiretroviral Therapy" In <i>AIDS: Biology, Diagnosis, Treatment, And Prevention, 4th Edition</i> , Lippincott-Raven Publishers, Philadelphia, Pp. 495-508			
		Hwang, S. et al., (1991) "Identification Of The Envelope V3 Loop As The Primary Determinant Of Cell Tropism In HIV-1," <i>Science</i> 253:71-74			
		Jacobson, J.M. et al., (1993) "Passive Immunotherapy In The Treatment Of Advanced Human Immunodeficiency Virus Infection", <i>J. Infect. Dis.</i> 168:298-305			
		Jacobson, J. et al., (1999) "Results Of A Phase I Trial Of Single-Dose PRO 542, A Novel Inhibitor Of HIV Entry", Abstracts Of The 39th Interscience Conference On Antimicrobial Agents And Chemotherapy 14			
		Ji, H. et al., (1999) "Inhibition Of Human Immunodeficiency Virus Type 1 Infectivity By The gp41 Core: Role Of A Conserved Hydrophobic Cavity In Membrane Fusion", <i>J. Virol</i> 73:8578-8586			
<b>EXAMINER SIGNATURE</b>		<b>DATE CONSIDERED</b>			
<p><b>*EXAMINER:</b> Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.</p>					

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Application Number</b>	09/460,216
	<b>Filing Date</b>	December 13, 1999
	<b>First Named Inventor</b>	Graham P. Allaway et al.
	<b>Art Unit</b>	1648
	<b>Examiner Name</b>	Jeffrey S. Parkin
	<b>Attorney Docket No.</b>	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Jiang, S. et al., (1993) "HIV-1 Inhibition By A Peptide", <i>Nature</i> 365: 113	
		Karwowska, S. et al., (1991) "Passive Immunization For The Treatment And Prevention Of HIV Infection", <i>Biotech. Therap.</i> 2:31-48	
		Katinger, H., (1994) "Human Monoclonal Antibodies For Passive Immunotherapy Of HIV-1" <i>Antibiot. Chemother.</i> 46:25-37	
		Keller, P.M. et al., (1977) "A Fluorescence Enhancement Assay Of Cell Fusion" <i>J. Cell Sci.</i> 28:167-177	
		Kilby, J.M. et al., (1998) "Potent Suppression Of HIV-1 Replication In Humans By T-20, A Peptide Inhibitor Of gp41-Mediated Virus Entry", <i>Nat. Med.</i> 4:1302-1307	
		Konigs, C. et al. (2000) "Monoclonal Antibody Screening Of Phage-Displayed Random Peptide Library Reveals Mimotopes Of Chemokine Receptor CCR5: Implications For The Tertiary Structure Of The Receptor And For An N-Terminal Binding Site For HIV-1 gp120", <i>Eur. J. Immunol.</i> 30(4):1162-1171	
		Konishi, K. et al., (2000) "Synthesis Of Peptides Mimicking Chemokine Receptor CCR5 And Their Inhibitory Effects Against HIV-1 Infection", <i>Chem. Pharm. Bull</i> (Tokyo) 48(2):308-309	
		Koup, R.A. et al., (1996) "Defining Antibody Protection Against HIV-1 Transmission In Hu-PBL-SCID Mice", <i>Immunology.</i> 8:263-268	
		Kwong P.D. et al., (1998) "Structure Of An HIV gp120 Envelope Glycoprotein In Complex With The CD4 Receptor And Neutralizing Human Antibody", <i>Nature</i> 393:648-659	
		Laal, S. et al., (1994) "Synergistic Neutralization Of Human Immunodeficiency Virus Type 1 By Combinations Of Human Monoclonal Antibodies", <i>J. Virol</i> 68:4001-4008	
		Lacasse, R.A. et al., (1999) "Fusion-Competent Vaccines: Broad Neutralization Of Primary Isolates Of HIV", <i>Science</i> 283:357-362	
		Lee, B. et al., (1999) "Epitope Mapping Of CCR5 Reveals Multiple Conformational States And Distinct But Overlapping Structures Involved In Chemokine Coreceptor Function", <i>J. Biol. Chem.</i> 274:9617-9626	
		Lehner, T. et al., (2001) "Immunogenicity Of The Extracellular Domains Of C-C Chemokine Receptor 5 And The In Vitro Effects On Simian Immunodeficiency Or HIV Infectivity", <i>J. Immunol.</i> 166(12):7446-7455	
		Li, A. et al., (1997) "Synergistic Neutralization Of A Chimeric SIV/HIV Type 1 Virus With Combinations Of Human Anti-HIV Type 1 Envelope Monoclonal Antibodies Or Hyperimmune Globulins", <i>AIDS Res. Hum. Retroviruses</i> 13:647-56	

<b>EXAMINER SIGNATURE</b>	<b>DATE CONSIDERED</b>
---------------------------	------------------------

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>2</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Li, A.H. et al., (1998) "Synergistic Neutralization Of Simian-Human Immunodeficiency Virus SHIV-Vpu+ By Triple And Quadruple Combination Of Human Monoclonal Antibodies And High-Titer Antihuman Immunodeficiency Virus Type 1 Immunoglobulins", <i>J. Virol.</i> 72:3235-3240	
		Mack, M. et al., (1998) "Aminoxyptentane-RANTES Induces CCR5 Internalization But Inhibits Recycling: A Novel Inhibitory Mechanisms Of HIV Infectivity", <i>J. Exp. Med.</i> 187:1215-1224	
		Mackay, C.R., (1996) "Chemokine Receptors And T Cell Chemotaxis", <i>J. Exp. Med</i> 84: 799-802	
		Maddon, P.J. et al., (1986) "The T4 Gene Encodes The AIDS Virus Receptor And Is Expressed In The Immune System And The Brain", <i>Cell</i> 47:333-348	
		Markosyan, R.M. et al., (2002) "The Mechanism Of Inhibition Of HIV-1 Entry Env-Mediated Cell-Cell Fusion By Recombinant Cores Of gp41 Ectodomain", <i>Virology</i> 302:174-184	
		Mateu, M.G. et al. (1992) "Non-Additive Effects Of Multiple Amino Acid Substitutions On Antigen-Antibody Recognition", <i>European J. Immunol.</i> 22(6):1385-1389	
		Max, E., "Immunoglobulins: Molecular Genetics" Fundamental Immunology, 4th Edition. Lippincott-Raven Publishers, Philadelphia, 1999 Pp. 11-182	
		Mitsuya, H. et al., (1985) "Protection Of T Cells Against Infectivity And Cytopathic Effect Of HTLV-III In Vitro", <i>Retroviruses In Human Lymphoma Leukemia Japan Sci. Soc. Press, Tokyo/VNU Science Press, Utrecht</i> Pp.277-288	
		Mittler, R.S. et al. (1989) "Synergism Between HIV gp120 And gp120-Specific Antibody In Blocking Human T. Cell Activation", <i>Science</i> 245:1380-1382	
		Mohan, P. et al., (1992) "Sulfonic Acid Polymers As A New Class Of Human Immunodeficiency Virus Inhibitors", <i>Antiviral Res.</i> 18:139-150	
		Mosier, D.E., (1990) "Immunodeficient Mice Xenografted With Human Lymphoid Cells: New Models For In-Vivo Studies Of Human Immunobiology And Infectious Diseases", <i>J. Clin. Immunol.</i> 10(4):185-191	
		Nagasawa, T. et al., (1994) "Molecular Cloning And Structure Of A Pre-B-Cell Growth-Stimulating Factor", <i>Proc. Natl. Acad. Sci.</i> 91:2305-2309	
		Nagashima, K.A. et al., (2001) "Human Immunodeficiency Virus Type 1 Entry Inhibitors PRO 542 And T-20 Are Potently Synergistic In Blocking Virus-Cell And Cell-Cell Fusion", <i>J. Infect. Dis.</i> 183:1121-1125	

**EXAMINER  
SIGNATURE**

**DATE CONSIDERED**

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Application Number</b>	09/460,216
	<b>Filing Date</b>	December 13, 1999
	<b>First Named Inventor</b>	Graham P. Allaway et al.
	<b>Art Unit</b>	1648
	<b>Examiner Name</b>	Jeffrey S. Parkin
	<b>Attorney Docket No.</b>	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Nakano, T. et al., (1995) "Vascular Smooth Muscle Cell-Derived, Gla-Containing Growth-Potentiating Factor For Ca(2+)-Mobilizing Growth Factors", <i>J. Biol. Chem.</i> 270(11):5702-5705	
		Neote, K. et al., (1993) "Molecular Cloning, Functional Expression, And Signaling Characteristics Of A C-C Chemokine Receptor", <i>Cell</i> 72:415-425	
		O'Brien, W.A. et al., (1990) "HIV-1 Tropism For Mononuclear Phagocytes Can Be Determined By Regions Of gp120 Outside Of The CD4-Binding Domain", <i>Nature</i> 348:69-73	
		Olson, W.C. et al., (1999) "Differential Inhibition Of Human Immunodeficiency Virus Type 1 Fusion, gp 120 Binding And CC-Chemokine Activity Of Monoclonal Antibodies To CCR5", <i>J. Virol.</i> 73:4145-4155	
		Oppermann, M. (2004) "Chemokine Receptor CCR5: Insights Into Structure, Function, And Regulation", <i>Cell. Signal.</i> 16:1201-1210	
		Parren, P.W. et al., (2001) "Antibody Protects Macaques Against Vaginal Challenge With A Pathogenic R5 Simian/Human Immunodeficiency Virus At Serum Levels Giving Complete Neutralization In Vitro" <i>J. Virol.</i> 75:8340-8347	
		Partidos, C. et al., (1992) "The Effect Of Orientation Of Epitopes On The Immunogenicity Of Chimeric Synthetic Peptides Representing Measles Virus Protein Sequences", <i>Molecular Immunology</i> 29(5):651-658	
		Peden, K. et al., (1991) "Changes In Growth Properties On Passage In Tissue Culture Of Viruses Derived From Infectious Molecular Clones Of HIV-1LAI, HIV-1MAL, And HIV-1ELI", <i>Virol.</i> 185:661-672	
		Poignard, P. et al., (1999) "Neutralizing Antibodies Have Limited Effects On The Control Of Established HIV-1 Infection In Vivo", <i>Immunity</i> 10:431-438	
		Posner, M.R. et al., (1993) "Neutralization Of HIV-1 By F105, A Human Monoclonal Antibody To The CD4 Binding Site Of gp120", <i>J. Acq. Immune Defic. Synd.</i> 6:7-14	
		Power, C.A. et al., (1995) "Molecular Cloning And Functional Expression Of A Novel CC Chemokine Receptor cDNA From A Human Basophilic Cell Line", <i>J. Biol. Chem.</i> 270:19495-19500	
		Proudfoot, A.E. et al., (1996) "Extension Of Recombinant Human RANTES By The Retention Of The Initiating Methionine Produces A Potent Antagonist", <i>J. Biol. Chem.</i> 271:2599-2603	
		Queen, C. et al., (1989) "A Humanized Antibody That Binds To The Interleukin 2 Receptor", <i>Proc. Natl. Acad. Sci</i> 86:10029-10033	

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Application Number</b>	09/460,216
	<b>Filing Date</b>	December 13, 1999
	<b>First Named Inventor</b>	Graham P. Allaway et al.
	<b>Art Unit</b>	1648
	<b>Examiner Name</b>	Jeffrey S. Parkin
	<b>Attorney Docket No.</b>	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>2</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Rabut, G.E. et al., (1991) "Alanine Substitutions Of Polar And Nonpolar Residues In The Amino-Terminal Domain Of CCR5 Differently Impair Entry Of Macrophage And Dualtropic Isolates Of Human Immunodeficiency Virus Type 1", <i>J. Virol.</i> 72:3464-3468	
		Raport, C.J. et al., (1996) "Molecular Cloning And Functional Characterization Of A Novel Human CC-Chemokine Receptor (CCR5) For RANTES, MIP-1 $\beta$ , And MIP-1 $\alpha$ ", <i>J. Biol. Chem.</i> 271:1761-17166	
		Rodriguez, G. et al (1995) "Mediation Of Human Immunodeficiency Virus Type 1 Binding By Interaction Of Cell Surface Heparin Sulfate Proteoglycans With V3 Region Of Envelope gp120-gp41", <i>J. Virol.</i> 69:2233-2239	
		Rucker, J. et al., (1996) "Regions In B-Chemokine Receptors CCR5 And CCR2b That Determine HIV-1 Cofactor Specificity", <i>Cell</i> 87:437-446	
		Ruffing, N. et al., (1998) "CCR5 Has An Expanded Ligand-Binding Repertoire And Is The Primary Receptor Used By MCP-2 On Activated T-Cells", <i>Cell. Immunol.</i> 189:160-168	
		Rudikoff, S. et al., (1982) "Single Amino Acid Substitution Altering Antigen-Binding Specificity", <i>Proc. Natl. Acad. Sci.</i> 79:1979-1983	
		Rusche, J.R. et al., (1988) "Antibodies That Inhibit Fusion Of Human Immunodeficiency Virus-Infected Cells Bind A 24-Amino Acid Sequence Of The Viral Envelope gp120", <i>Proc. Natl. Acad. Sci.</i> 85:3198-3202	
		Sagg, M. (1997) "Clinical Spectrum Of Human Immunodeficiency Virus Diseases" <i>AIDS: Biology, Diagnosis, Treatment And Prevention</i> , Lippincott-Raven Publishers, Philadelphia, Pp. 203-213	
		Sandberg, J. and Slikker, W., (1995) "Developmental Pharmacology And Toxicology Of Anti-HIV Therapeutic Agents: Dideoxynucleosides", <i>FASEB J.</i> 9:1157-1163	
		Sandstorm, E.G. And Kaplan, J.C., (1987) "Antiviral Therapy In AIDS: Clinical Pharmacological Properties And Therapeutic Experience To Date", <i>Drugs</i> 34:372-390	
		Sato, A.I. et al., (1992) "Anti-CD7 Reagents Inhibit HIV-1 Induced Syncytium Formation," International Conference On AIDS. 81. PA5 Poa 2017	
		Sato, A.I. et al., (1994) "Identification Of CD7 Glycoprotein As An Accessory Molecule In HIV-1 Mediated Syncytium Formation And Cell Free Infection", <i>J. Immunol.</i> 152:5142-5152	
		Sato, A.I. et al., (1995) "A Simple And Rapid Method For Preliminary Evaluation Of In Vivo Efficacy Of Anti-HIV Compounds In Mice", <i>Antivir. Res.</i> 27:151-163	

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Schanberg, L.W. et al., (1995) "Characterization Of Human CD7 Transgenic Mice", <i>J. Of Immunol.</i> 155: 2407-2418	
		Schmidtmayerova, H. et al., (1993) "Characterization Of HIV1-PAR, A Macrophage-Tropic Strain: Cell Tropism, Virus/Cell Entry And Nucleotide Sequence Of The Envelope Glycoprotein. <i>Research In Virology</i> 144(1):21-26	
		Schols, D. et al., (1990) "Dextran Sulfate And Other Olyanionic Anti-HIV Compounds Specifically Interact With The Viral gp120 Glycoprotein Expressed By T-Cells Persistently Infected With HIV-1", <i>Virol.</i> 175:556-561	
		Schols, D. et al., (1991) "Selective Inhibitory Activity Of Polyhydroxycarboxylates Derived From Phenolic Compounds Against Human Immunodeficiency Virus Replication", <i>J. Acq. Immune Defic. Synd.</i> 4:677-685	
		Schols, D. et al., (1999) "CD26-Processed RANTES(3-68), But Not Intact RANTES, Has Potent Anti-HIV-1 Activity", <i>Antiviral Res.</i> 30:175-187	
		Sinangil, F. et al., (1988) "Quantitative Measurement Of Fusion Between Human Immunodeficiency Virus And Cultured Cells Using Membrane Fluorescence Dequenching", <i>FEB</i> 239(1):88-92	
		Sommerfelt, M.A. et al., (1995) "Intercellular Adhesion Molecule 3, A Candidate Human Immunodeficiency Virus Type 1 Co-Receptor On Lymphoid And Monocytoid Cells", <i>J. Gen. Virol.</i> 76:1345-1352	
		Stein, D.S. et al., (1993) "Immune-Based Therapeutics: Scientific Rationale And Promising Approaches To The Treatment Of The Human Immunodeficiency Virus-Infected Individual", <i>Clin. Infect. Dis.</i> 17:749-771	
		Steinberger, P. et al., (2000) "Generation And Characterization Of A Recombinant Human CCR5-Specific Antibody", <i>J. Biol. Chem.</i> 275:36073-36078	
		Stewart, G.J., (1997) "Increased Frequency Of CCR-5 Δ32 Heterozygotes Among Long-Term Non-Progressors With HIV-1 Infection", <i>AIDS</i> 11:1833-1838	
		Strizki, J.M. et al., (1997) "A Monoclonal Antibody (12G5) Directed Against CXCR4 Inhibits Infection With The Dual-Tropic Human Immunodeficiency Virus Type 1 Isolates HIV-1 89.6 But Not The T-Tropic Isolate HIV-1 Hxb", <i>J. Virol.</i> 71:5678-5683	
		Su, S.B. et al., (1996) "Preparation Of Specific Polyclonal Antibodies To A C-C Chemokine Receptor, CCR1, And Determination Of CCR1 Expression On Various Types Of Leukocytes" <i>J. Leukoc. Biol.</i> 60:658-666	
		Szabo, G. Jr. et al., (1993) "Specific Disengagement Of Cell-Bound Anti-LAM-1 (Anti-Selectin) Antibodies By Aurintricarboxylic Acid," <i>Molecular Immunology</i> 30(18):1689-1694	

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.



<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Thali, M. et al., (1992) "Cooperativity Of Neutralizing Antibodies Directed Against The VS And CD4 Binding Regions Of The Human Immunodeficiency Virus gp120 Envelope Glycoprotein", <i>J. Acq. Immun. Defic. Synd.</i> 5:591-599	
		Tilley, S. A. (1992) "Synergistic Neutralization Of HIV-1 By Human Monoclonal Antibodies Against The V3 Loop And The CD4-Binding Site gp120", <i>AIDS Research And Human Retroviruses</i> 80:4:461-467	
		Tilley, S. A. et al., (1991) "Potent Neutralization Of HIV-1 By Human And Chimpanzee Monoclonal Antibodies Directed Against Three Distinct Epitope Clusters Of gp120", <i>Sixieme Colloque Des Cent Gardes.</i> 211-216	
		Travis, B.M. et al., (1992) "Functional Roles Of The V3 Hypervariable Region Of HIV-1 gp160 In The Processing Of gp160 And In The Formation Of Syncytia In CD4-Positive Cells", <i>Virol.</i> 186:313-317	
		Tremblay, C.L. et al. (2000) "Strong In Vitro Synergy Observed Between The Fusion Inhibitor T-20 And A CXCR4 Blocker AMD-3100.", 7th Conference On Retroviruses And Opportunistic Infections Abstract 500	
		Tremblay, C.L. et al., (1999) "Strong In Vitro Synergy Between The Fusion Inhibitor T-20 And The CXCR4 Blocker AMD-3100", <i>J. Acq. Immun. Defici. Synd.</i> 25(2)99-102	
		Trkola, A. et al., (2001) "Potent, Broad-Spectrum Inhibition Of Human Immunodeficiency Virus Type 1 By The CCR5 Monoclonal Antibody PRO 140", <i>J. Virol.</i> 75:579-588	
		Trkola, A et al (1999) "Cross-Clade Neutralization Of Primary Isolates Of Human Immunodeficiency Virus Type 1 By Human Monoclonal Antibodies And Tetrameric CD4-IgG", <i>J. Virol.</i> 69:6609-6617	
		Trkola, A. et al., (1998) "Neutralization Sensitivity Of Human Immunodeficiency Virus Type 1 Primary Isolates To Antibodies And CD4-based Reagents Is Independent Of Coreceptor Usage", <i>J. Virol.</i> 72:1876-1885	
		Tulip, W.R. et al., (1992) "Crystal Structures Of Two Mutant Nerraminidase-Antibody Complexes With Amino Acid Substitutions In The Interface", <i>J. Mol. Biol.</i> 227:149-159	
		Valentin, A. et al., (1990) "The Leukocyte Adhesion Glycoprotein CD18 Participates In HIV Induced Syncytia Formation In Monocytoid And T Cells", <i>J. Immunol.</i> 144:934-937	
		Valenzuela, A. et al., (1997) "Neutralizing Antibodies Against The V3 Loop Of Human Immunodeficiency Virus Type 1 Block The CD4-Dependent And Independent Binding Of Virus To Cells", <i>J. Virol.</i> 71(11):8289-8298	
		Vanini, S. et al., (1992) "Discrete Regions Of HIV-1 gp41 Defined By Syncytia-Inhibiting Affinity-Purified Human Antibodies", <i>AIDS</i> 7:167-174	

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

**\*EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Application Number	09/460,216
	Filing Date	December 13, 1999
	First Named Inventor	Graham P. Allaway et al.
	Art Unit	1648
	Examiner Name	Jeffrey S. Parkin
	Attorney Docket No.	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Verrier, F.C. et al., (1997) "Antibodies To Several Conformation-Dependent Epitopes Of gp120/gp41 Inhibit CCR-5-Dependent Cell-To-Cell Fusion Mediated By The Native Envelope Glycoprotein Of A Primary Macrophage-Tropic HIV-1 Isolate", <i>Proc. Natl. Acad. Sci.</i> 94:9326-9331	
		Vijh-Warrier, S, (1996) "Synergistic Neutralization Of Human Immunodeficiency Virus Type 1 By A Chimpanzee Monoclonal Antibody Against The V2 Domain Of gp120 In Combination With Monoclonal Antibodies Against The V3 Loop And The CD4-Binding Site", <i>J. Virol.</i> 70:4466-4473	
		Vila-Coro, A.J. et al., (2000) "HIV-1 Infection Through The CCR5 Receptor Is Blocked By Receptor Dimerization", <i>Proc. Natl. Acad. Sci.</i> 97(7):3388-3393	
		Vita, C. et al., (1999) "Rational Engineering Of A Miniprotein That Reproduces The Core Of The CD4 Site Interacting With HIV-1 Envelope Glycoprotein", <i>Proc. Natl. Acad. Sci.</i> 96:13091-13096	
		Wang, Z.Q. et al., (1994) "Deletion Of T Lymphocytes In Human CD4 Transgenic Mice Induced By HIV-gp120 And gp120-Specific Antibodies From AIDS Patients", <i>Eur. J. Immunol.</i> 24:1553-1557	
		Wanda, P.E., And Smith, J.D., (1982) "A General Method For Heterokaryon Detection Using Resonance Energy Transfer And A Fluorescence-Activated Cell Sorter", <i>J. Histochem. &amp; Cytochem.</i> 30(12):1297-1300	
		Weinhold, K.J., et al., (1989) "HIV-1 gp120-Mediated Immune Suppression And Lymphocyte Destruction In The Absence Of Viral Infection", <i>J. Immunol.</i> 142:3091-3097	
		Wild, C. et al., (1992) "A Synthetic Peptide Inhibitor Of Human Immunodeficiency Virus Replication: Correlation Between Solution Structure And Viral Inhibition", <i>Proc. Natl. Acad. Sci.</i> 89:10537-10541	
		Wild, C. et al., (1993) "A Synthetic Peptide From HIV-1 gp41 Is A Potent Inhibitor Of Virus Mediated Cell-Cell Fusion", <i>AIDS Res. Hum. Retroviruses</i> 9:1051-1053	
		Wild, C. et al., (1994) "Peptides Corresponding To A Predictive Alpha-Helical Domain Of Human Immunodeficiency Virus Type 1 gp41 Are Potent Inhibitors Of Virus Infection", <i>Proc. Natl. Acad. Sci.</i> 91:9770-9774	
		Wild, C. et al., (1995) "The Inhibitory Activity Of An HIV Type 1 Peptide Correlates With Its Ability To Interact With A Leucine Zipper Structure", <i>AIDS Res. Hum. Retroviruses</i> 11:323-325	

**EXAMINER  
SIGNATURE**
**DATE CONSIDERED**

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.

<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Application Number</b>	09/460,216
	<b>Filing Date</b>	December 13, 1999
	<b>First Named Inventor</b>	Graham P. Allaway et al.
	<b>Art Unit</b>	1648
	<b>Examiner Name</b>	Jeffrey S. Parkin
	<b>Attorney Docket No.</b>	50875-F-PCT US/JPW/AG/LAD

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Wu, L. et al., (1997) "Interaction Of Chemokine Receptor CCR5 With Its Ligands: Multiple Domains For HIV-1 gp120 Binding And A Single Domain For Chemokine Binding", <i>J. Exper. Med.</i> 186(8):1373-1381	
		Yamagami, S. et al., (1994) "cDNA Cloning And Functional Expression Of Human Monocyte Chemoattractant Protein 1 Receptor", <i>Biochem. Biophys. Res. Commun.</i> 212:1156-1162	
		Ylisastigui, L. et al., (1998) "Synthetic Full Length And Truncated RANTES Inhibit HIV-1 Infection Or Primary Macrophages", <i>AIDS</i> 12:977-984	

<b>EXAMINER SIGNATURE</b>	<b>DATE CONSIDERED</b>
-------------------------------	------------------------

**\*EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.